

REMARKS

This application has been carefully reviewed in light of the Office Action dated January 26, 2006. Claims 1 to 6, 8 to 21, 23 to 34 and 36 to 40 are pending in the application, with Claims 7, 22 and 35 having been cancelled and Claims 37 to 40 having been added. Claims 1, 3, 16, 18, 28, 31 to 34 and 36 have been amended, and Claims 1, 3, 16, 18, 31 to 34 and 36 are in independent form. Reconsideration and further examination are respectfully requested.

The specification was objected to for alleged informalities. More specifically, it was requested that section headings be inserted into the specification. Applicants have amended the specification to include section headings. Reconsideration and withdrawal of this objection are respectfully requested.

Claims 31 to 35 were rejected under 35 U.S.C. § 101 for allegedly claiming non-statutory subject matter. Claim 35 has been cancelled without prejudice or disclaimer of subject matter, and without conceding the correctness of its rejection.

The rejection is traversed with respect to Claims 31 and 32, since the user interface recited in each of these claims is seen to correspond to an apparatus with structure (see, for example, Figures 1, 2 and 11A to 14 in the specification).

Claims 33 and 34 have been amended include both “program” and “computer-readable storage medium” language. Reconsideration and withdrawal of the § 101 rejection with respect to Claims 33 and 34 is therefore respectfully requested.

Claims 1, 2, 4, 5, 7 to 14, 16, 17, 19, 20, 22 to 29, 31, and 33 to 36 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,963,965 (Vogel); Claim 32 was rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,838,323 (Rose); Claims 3 and 18

were rejected under 35 U.S.C. § 102(e) over U.S. Patent Application Publication No. 2003/0130837 (Batchilo); Claims 6 and 21 were rejected under 35 U.S.C. § 103(a) over Vogel in view of Rose; and Claims 15 and 30 were rejected under 35 U.S.C. § 103(a) over Vogel in view of U.S. Patent No. 6,533,822 (Kupiec). Claims 7, 22 and 35 have been cancelled without prejudice or disclaimer of the subject matter and without conceding the correctness of their rejection. Reconsideration and withdrawal of the rejection of the remaining claims are respectfully requested.

Claims 1, 3, 16, 18, 33, 34 and 36

Independent Claim 1 as amended is directed to an apparatus for providing a user with an indication of the content of a text. The apparatus includes receiving means for receiving text data, topic determining means for determining from the text data at least one topic, and topic context data identifying means for identifying in the text data context data associated with the at least one topic determined by the topic determining means. The apparatus also includes topic context data position determining means for determining, for each item of context data identified by the topic context data identifying means, the actual position of that item of context data within the text. In addition, the apparatus includes topic representation data providing means operable to provide topic representation data defining a graphical representation of the at least one topic in which are distributed visual indicia representing at least some of the context data with the distribution of the visual indicia indicating visually to the user the relative positions within the text data of the corresponding items of context data on the basis of the actual positions of the items of context data within the text as determined by the topic context data position determining

means. The apparatus also includes supplying means for supplying the topic representation data for enabling display of the at least one topic representation to a user.

Independent Claims 16, 33, 34 and 36 are respectively directed to a method, computer-executable program instructions, a computer-readable storage medium and an apparatus which are seen to generally correspond with Claim 1.

Independent Claim 3 as amended is directed to an apparatus for providing a user with an indication of the content of a text. The apparatus includes a part-of-speech associater for associating words in text data with part-of-speech identifiers to produce part-of-speech identified text data, a topic determiner for determining from the part-of-speech-identified text data at least one topic that occurs in the text data, and a topic context data identifier for identifying in the text data context data associated with the at least one topic determined by the topic determiner. The apparatus also includes a topic context data position determiner for determining, for each item of context data identified by the topic context data identifier, the actual position of that item of context data within the text. In addition, the apparatus includes a topic representation data provider operable to provide topic representation data defining a graphical representation of the at least one topic in which are distributed visual indicia representing at least some of the context data with the distribution of the visual indicia indicating visually to the user the relative positions within the text data of the corresponding items of context data on the basis of the actual positions of the items of context data within the text as determined by the topic context data position determining means. The apparatus also includes a display controller for causing a display to display the topic representation.

Independent Claim 18 as amended is directed to a method which is seen to generally correspond with Claim 3.

Thus, among its many features, the invention of Claims 1, 3, 16, 18, 33, 34 and 36 provides for (i) determining, for each item of identified context data, an actual position of that item of context data within text, and (ii) providing topic representation data defining a graphical representation of at least one topic in which are distributed visual indicia representing at least some of the context data, with the distribution of the visual indicia indicating visually to a user the relative positions within the text data of the corresponding items of context data on the basis of the actual determined positions of the items of context data within the text.

By virtue of the foregoing, a user can more easily determine where in a document to look for text associated with a particular context, thereby increasing the speed and use in which the user can extract salient information from text. The applied references of Vogel, Rose, Batchilo and Kupiec are not seen to disclose or suggest at least the foregoing features.

As understood by Applicants, Vogel discloses that the input to a clusterizer system is a plurality of indexes, for each piece of text. Phrases that are found frequently related to each other are clustered. The clustering algorithm used may be one of a well known number of clustering algorithms, such as that created by Dr. Bertrand Michelet. The basic principle of Dr. Bertrand Michelet's algorithm is that for two given words, the probability of the words being separate from one another and the probability that the words are found together are both calculated. If the probability of the words being found together is greater than the probability of the words being found apart from each other, then the

words are clustered together. Once the phrases have been clustered together, the clustered phrases are converted into a graphical map containing graphical representations of the word clusters as well as lines that indicate a relationship of the word clusters to each other. See Vogel, column 15, lines 35 to 60.

As such, Vogel is seen to disclose clustering pieces of textual data in accordance with their content, and producing maps that display the resulting clusters and the relationship between the clusters to a user. However, nothing in Vogel is seen to disclose or suggest that for each item of identified context data, an actual position is determined of that item of context data within text. Moreover, Vogel is not seen to disclose or suggest visually indicating to a user relative positions within the text data of the corresponding items of context data, on the basis of the actual determined positions of the items of context data within the text. Rather, Vogel is merely seen to disclose that maps of clustered phrases contain representations of word clusters and relationships therebetween.

Accordingly, Vogel is not seen to disclose or suggest (i) determining, for each item of identified context data, an actual position of that item of context data within text, and (ii) providing topic representation data defining a graphical representation of at least one topic in which are distributed visual indicia representing at least some of the context data, with the distribution of the visual indicia indicating visually to a user the relative positions within the text data of the corresponding items of context data on the basis of the actual determined positions of the items of context data within the text. In addition, Vogel is not seen to suggest the attendant benefits provided by such provision of topic representation data associated with relative positions.

As understood by Applicants, Batchilo discloses a system and method for summarizing the contents of a natural language document provided in electronic or digital form. See Batchilo, Abstract. After a weighted score for each sentence of a document is obtained, the document is sent to an input of a summary generator, which can generate a certain type of summary from one or more available summary types, depending on the request. The request may come from a user, or some other system or subsystem. A Keyword Summary produces a summary in the form of a list of keywords that are weighted noun groups (e.g., subjects and objects of complete or incomplete eSAO). These keywords are sorted by St-weighted values, from largest to smallest. A Topic-oriented Summary produces a structured keyword summary. See Batchilo, paragraphs 271 to 273; and Figure 10.

However, the topic-oriented summary of Batchilo's Figure 10 is not seen to indicate relative positions within the text data of corresponding items of context data. Rather, the topic-oriented summary in Batchilo is seen to indicate a structured keyword summary.

Accordingly, Batchilo is not seen to disclose or suggest (i) determining, for each item of identified context data, an actual position of that item of context data within text, and (ii) providing topic representation data defining a graphical representation of at least one topic in which are distributed visual indicia representing at least some of the context data, with the distribution of the visual indicia indicating visually to a user the relative positions within the text data of the corresponding items of context data on the basis of the actual determined positions of the items of context data within the text. In

addition, Batchilo is not seen to suggest the attendant benefits provided by such provision of topic representation data associated with relative positions.

In addition, Rose, and Kupiec have been reviewed and are not seen to compensate for the deficiencies of Vogel and Batchilo.

Allowance of Claims 1, 3, 16, 18, 33, 34 and 36 is therefore respectfully requested.

Claim 31

Independent Claim 31 as amended is directed to a user interface. The user interface includes topic representation display means arranged to display in a display area a graphical representation of a topic identified in text data, in which graphical representation are distributed visual indicia representing visually to the user the relative positions within the text data of items of context data associated with the identified topic on the basis of the actual positions of the items of context data within the text. The user interface also includes user input receiving means for receiving user input from a user input device and for moving the cursor in the display area in accordance with the user input. In addition, the user interface includes modifying means for modifying the graphical topic representation when the cursor is placed over a visual indicia.

A feature of the invention of Claim 31 therefore lies in displaying a graphical representation of a topic identified in text data, in which graphical representation are distributed visual indicia representing visually to a user the relative positions within the text data of items of context data associated with the identified topic on the basis of the actual positions of the items of context data within the text. The applied references of Vogel, Rose, Batchilo and Kupiec are not seen to disclose or suggest at least this feature.

As noted above, Vogel is seen to disclose clustering pieces of textual data in accordance with their content, and producing maps that display the resulting clusters and the relationship between the clusters to a user. However, nothing in Vogel is seen to disclose or suggest displaying a graphical representation of a topic identified in text data, in which graphical representation are distributed visual indicia representing visually to a user the relative positions within the text data of items of context data associated with the identified topic on the basis of the actual positions of the items of context data within the text.

In addition, Rose, Batchilo and Kupiec have been reviewed and are not seen to compensate for the deficiencies of Vogel.

Allowance of Claim 31 is therefore respectfully requested.

Claim 32

Independent Claim 32 as amended is directed to a user interface. The user interface includes display means arranged to display a display region having first and second display areas adjacent to one another and configured to display in the first display area at least a portion of a text and to display in the second display area a graphical representation of a topic occurring in the text in which graphical representation are distributed visual indicia representing visually to the user context data associated with that topic such that the relative positions within the text data of items of context data associated with the topic are determined by the actual positions of the items of context data within the text, the display means also being arranged to display a cursor in the display region and a scroll bar associated with the first display area. The user interface also includes user input means for receiving user input from a user input device and for moving the cursor in the

display region in accordance with the user input. In addition, the user interface includes scrolling means for scrolling both the text in the first display area and the topic representation in the second display area when user input is received by the user input means that causes the cursor to move to input a scroll instruction.

A feature of the invention of Claim 32 therefore lies in displaying a graphical representation of a topic occurring in text, in which graphical representation are distributed visual indicia representing visually to a user context data associated with that topic such that the relative positions within the text data of items of context data associated with the topic are determined by the actual positions of the items of context data within the text. The applied references of Vogel, Rose, Batchilo and Kupiec are not seen to disclose or suggest at least this feature.

As understood by Applicants, Rose discloses a computer system user interface with an interactive control which allows a user to specify whether more or less of an original document should be included in a document summary. See Rose, column 2, lines 18 to 21. In addition, a slider or knob user interface is provided which is stated to enable a user to control the level of summary displayed. See Rose, column 5, lines 31 to 45.

As such, Rose is seen to disclose the display of a shorter or longer summary of a document based on a the use of an interactive control. However, nothing in Rose is seen to disclose or suggest displaying a graphical representation of a topic occurring in text, in which graphical representation are distributed visual indicia representing visually to a user context data associated with that topic such that the relative positions within the text

data of items of context data associated with the topic are determined by the actual positions of the items of context data within the text.

In addition, Vogel, Batchilo and Kupiec have been reviewed and are not seen to compensate for the deficiencies of Rose.

Allowance of Claim 32 is therefore respectfully requested.

Accordingly, based on the foregoing amendments and remarks, independent Claims 1, 3, 16, 18, 31 to 34 and 36 as amended are believed to be allowable over the applied references.

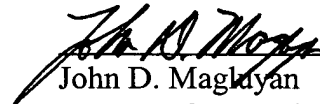
The other claims in the application are each dependent from the independent claims and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

No other matters being raised, it is believed that the entire application is fully in condition for allowance, and such action is courteously solicited.

An Information Disclosure Statement accompanies this Amendment.

Applicants' undersigned attorney may be reached in our Costa Mesa,
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our below-listed address.

Respectfully submitted,


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